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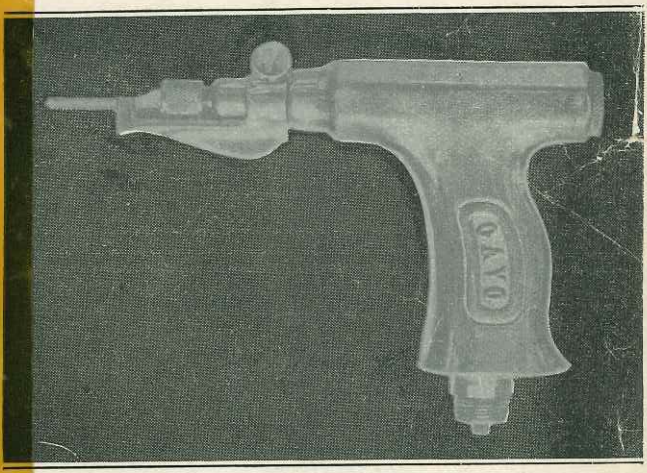
THE

CAYO

POWER INSTRUMENTS



A Complete Set of Power Instruments
Which Fulfill Every Need in the
Mechanics of
BONE SURGERY

606/167

MANUFACTURED BY

THE AMERICAN POWER
INSTRUMENT COMPANY
SAN ANTONIO, TEXAS

In response to a long-felt need among Orthopedic Surgeons for a satisfactory power instrument in bone surgery, the Cayo Power Instruments, with their various attachments, have been developed at the Santa Rosa Hospital by Dr. E. P. (Pat) Cayo in collaboration with his brother, Dr. Edward A. Cayo.

These men have devoted several years of diligent work to the development of these instruments, doing all preliminary and test work in their own private shop. Not until they were capable of fulfilling every need in the mechanics of bone surgery, were they introduced to the medical profession—and then not for sale, but for criticism.

Introduced at a District Medical meeting in San Antonio in January, 1934, they attracted such favorable comment that the originators were encouraged to build a few sets for demonstration at the Texas State Meeting in May, 1934. This was done, and again the instruments were enthusiastically received. Dr. W. B. Carrell, an Orthopedic Surgeon of Dallas, Texas, and Dr. Howard Granberry, a general surgeon of Austin, Texas, each purchased a complete set of instruments. After several months of use these men have had only praise for the performance of the instruments. For the past twelve months, Dr. Edward A. Cayo, whose practice is limited to bone surgery, has used them almost daily in his work Because of these demonstrations of efficiency in actual bone surgery, and the laboratory tests they have successfuly undergone, the American Power Instrument Company, of San Antonio, is placing the instruments on the market, confident that they will be enthusiastically received.

Plate No. 2 **The Case Closed**

Plate No. 3 **The Case Opened**

The case is of firmly jointed, quarter-sawed oak, hand polished, and fitted with heavy, plated hardware. Dimensions are 8"x8"x16". Weight, all instruments included, only 25 pounds.

The case opens like a book to lie flat on a table. In one side are two compartments, one encasing a universal motor; the other holding a removable sterilizing box which holds all instruments in the set, including the three guns. Recesses to securely hold the guns when not in use are built in the other side. The removable sterilizing box permits all instruments in the set to be kept sterilized and ready for instant use at any time.

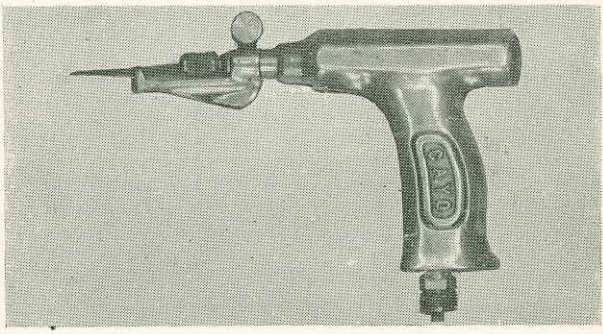


Plate No. 1

The Saw

Around this instrument the whole set of Cayo Power Instruments was evolved. The desirability of a reciprocal power saw in bone surgery had long been apparent to the Cayo Brothers and Dr. E. P. Cayo undertook to develop such a saw. The first product, while far from satisfactory, proved a revelation to him, as well as his brother, by the work it could do.

The saw is a pistol grip instrument, of hollow cast bronze, chromium plated. The moving parts are of stainless steel, carefully ground to fit. Every Cayo instrument is hand made by a highly skilled mechanic. All instruments are guaranteed for one year against defective workmanship or material. Moreover, at any time after the one year period, anything going wrong which, in the opinion of Dr. Cayo, is due to defective material or workmanship, will be repaired without charge.

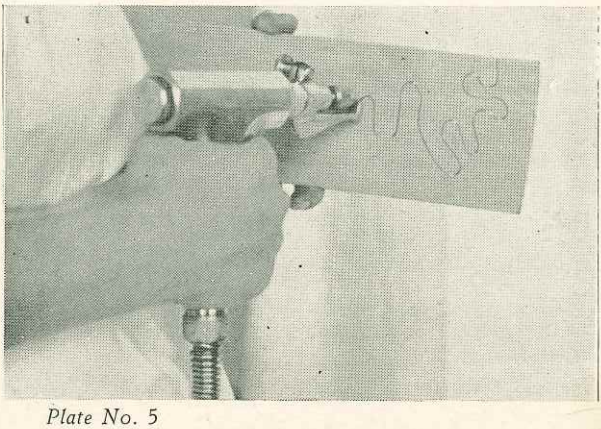


Plate No. 5

The saw, equipped as shown above, will do any kind of work necessary in ordinary bone surgery, do it easily and quickly. It will work in a very small field, without injury to adjacent tissue.

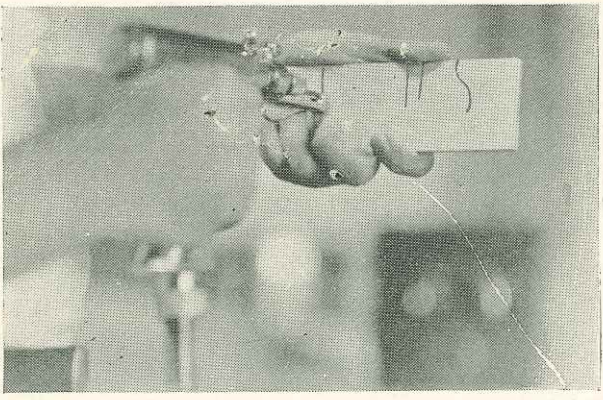


Plate No. 8

The Short Stroke Saw

This is a special saw, built like the standard saw, but having a very short stroke. It will do unusual work, such as severing ribs without injuring the underlying pleura. The cut above shows a board being cut against the palm of the hand without injury to the hand. In fact, the hand may be closed around the saw blade going at full speed without danger to the operator. When equipped with the gage shown in Figure 3, Plate 15, the saw will make bone flaps in the skull without injury to the dura. This, however, requires considerable skill.

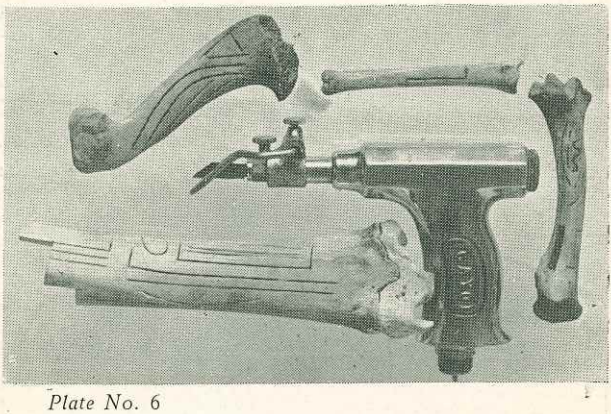


Plate No. 6

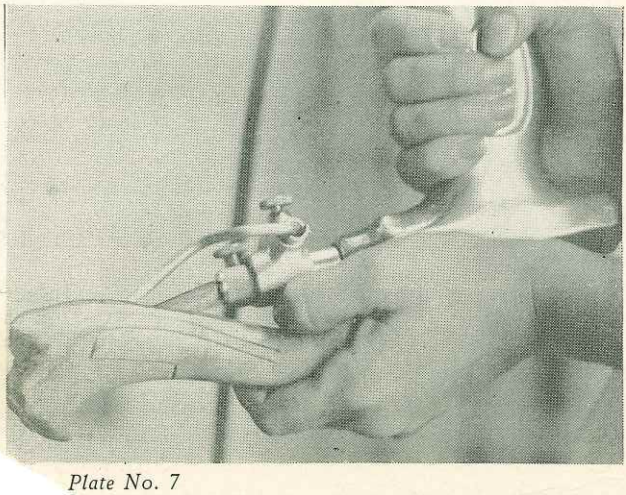


Plate No. 7

The saw, equipped as shown above, will make any conceivable cut in a bone, make bone grafts, curved or otherwise. For this work the saw should be held upside down as shown in Cut 7. It will cut easily, quickly, with minimum bone exposure and without injury to adjacent tissue.

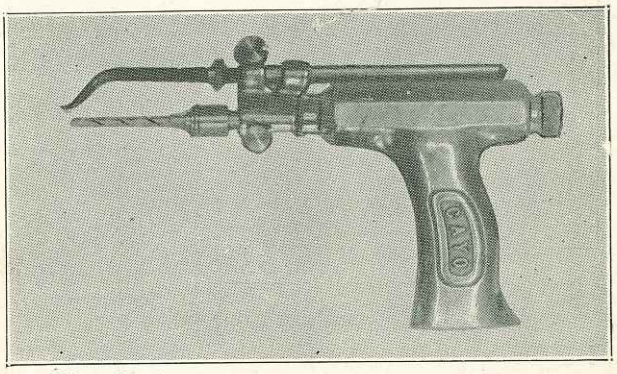


Plate No. 9.

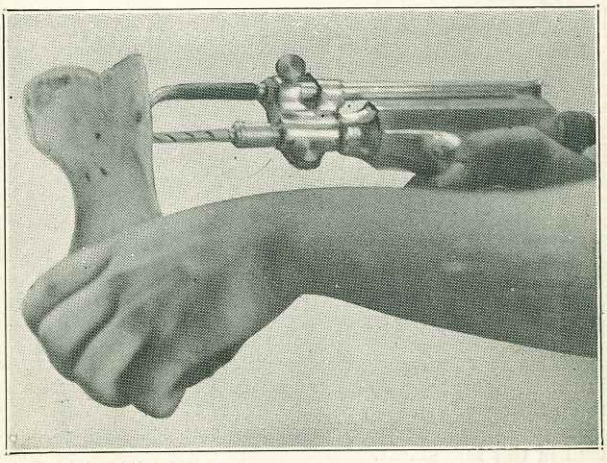


Plate No. 10.

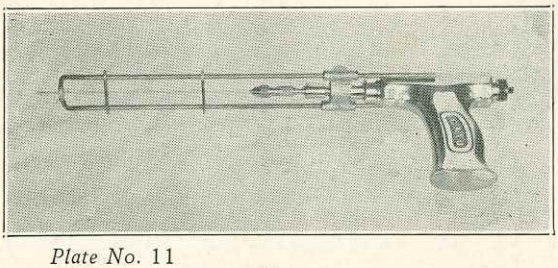


Plate No. 11

The Drill

This instrument was developed as a companion for the saw. When equipped with the gage as shown in Plate 9, it will work without dancing of the drill point over the bone surface. Moreover, the depth of the perforation is automatically controlled. The tips are securely locked in the chuck yet can be instantly removed by a slight upward movement of the thumb and forefinger. Besides the tips furnished with this instrument, there is a specially devised chuck for the purpose of holding small drills.

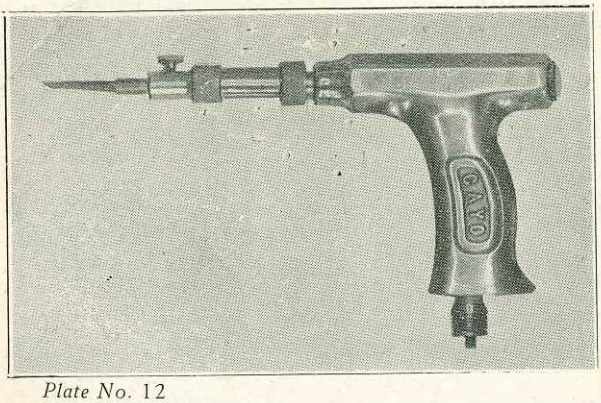


Plate No. 12

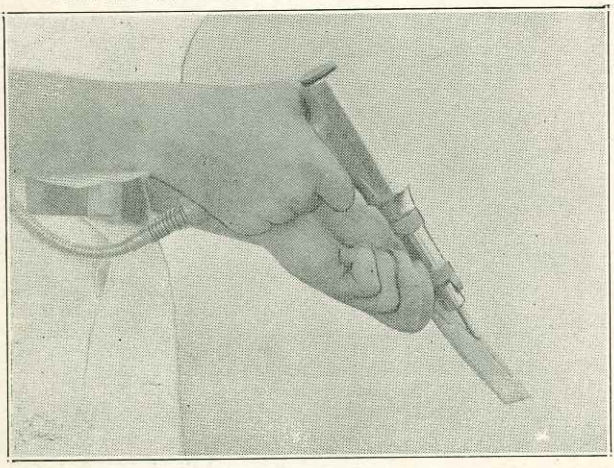


Plate No. 13

The Chisel

This is another companion piece to the saw. It is intended, not only to replace the old chisel and mallet, but to do finer work and do it in a more scientific and satisfactory manner. Chisels and gouges of any size and shape can be used in this instrument.

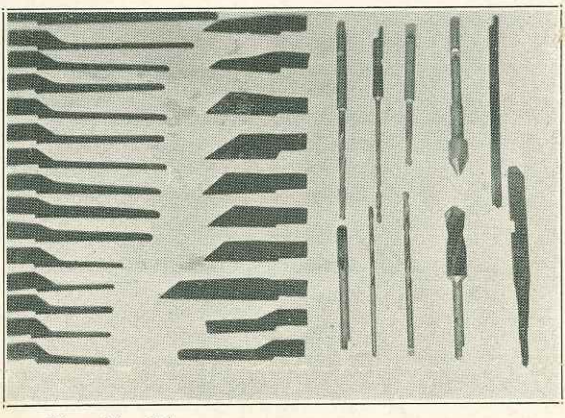


Plate No. 14

Instrument Tips

Above are shown the various tips used with the Cayo Instruments. These tips are specially made to fit their respective guns and are plated to withstand corrosion. Although made of the best materials, they are, of course, subject to wear, but are inexpensive to replace.

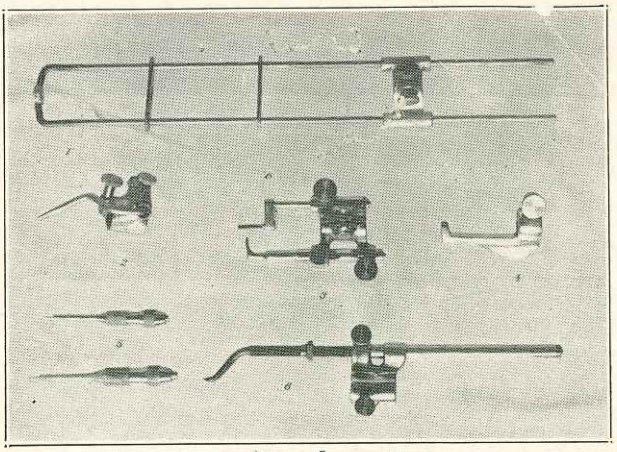


Plate No. 15 **Attachments**

No. 1 prevents long, slender drills from bending, yet permits them to penetrate to their full length. No. 2. A special gauge, made for cutting bone grafts, etc. No. 3. A gauge for making bone flaps in the skull. No. 4. A saw rest as well as a gauge, absolutely necessary in all but special work. No. 5. Drill chucks, necessary when small or off-size drills are used. No. 6. Drill stabilizer and gauge.

The Flexible Shaft

See Plate No. 17

This is a specially built shaft, the product of much experimentation. Although small and flexible, it will stall the motor without breaking and will stand repeated sterilization without injury. It is instantly attachable to the motor without twisting, turning or missing. The shaft, with ordinary care, should last indefinitely without giving any trouble. One end of the shaft is attached to the gun in the same manner as a cap is attached to a fountain pen; the other end is then passed directly into an opening in the side of the case and the instrument is ready for use.

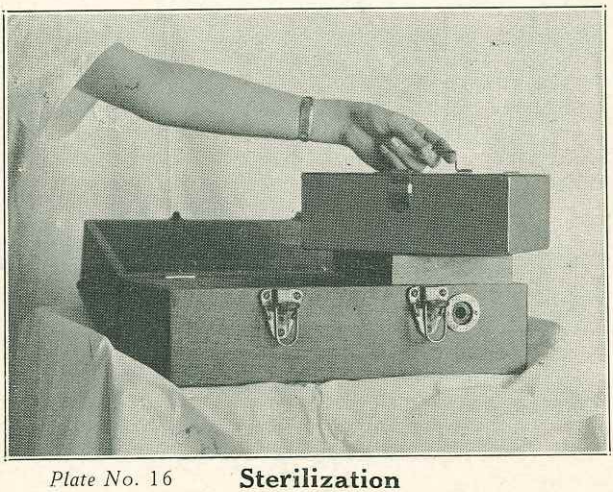


Plate No. 16 **Sterilization**

When preparing for sterilization, all instruments, including guns, flexible shaft, tips, etc., are placed in the box as shown above. The box is snapped shut and placed in the sterilizer. This box is of heavy chromium plated copper.

The Motor

The motor is a specially built product, made by one of the largest manufacturers in the United States. Light in weight, it is powerful far beyond the ordinary motor and will operate on either direct or alternating current.

Dr-330

Foot Switch

Although containing a rheostat, the foot switch is a compact unit of cast aluminum, built to stand hard usage.

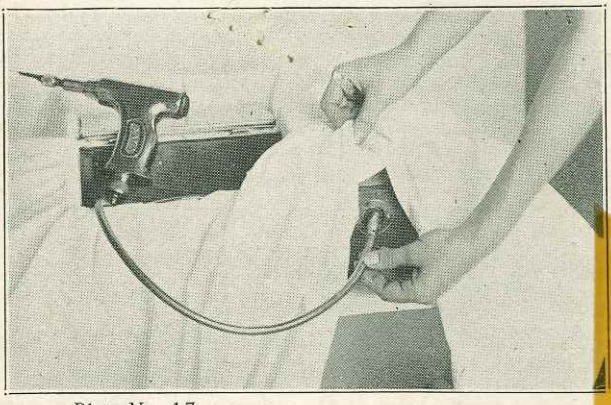


Plate No. 17

Preparation for Operation

The instrument case is placed on a side table and opened. (Dr. Cayo prefers a special table which slides over the patient's body). The foot switch is connected to the case and to the line current. A sterile sheet is then draped over the case and table. The box of instruments is then placed in its compartment in the case, bringing the sterile sheet with it as shown above. The box is opened and the instruments removed; then the knurled end of the shaft is attached to the gun to be used. The gun is temporarily replaced in the box and the other end of the shaft is picked up; a corner of the sterile sheet is raised as shown above and the shaft pushed into place in the case, the sheet being allowed to drop back into place. It might be well to clamp the sheet to the shaft with a towel forcep. The instrument is now ready for use and need cause no more anxiety about contamination than any simple instrument.

Standard Model

The standard model consists of a case with motor, a saw gun with gauge, and 24 plated saw blades of assorted lengths and sizes; a drill gun with gauge and small universal chuck, and six plated drills of assorted sizes and lengths; a chisel gun with gouge and two chisel tips; a plated copper tip box; a flexible shaft; a sterilizer box; a small can of oil and complete instruction sheet.

The standard model sells for $350.00 F. O. B. San Antonio, and can be secured from the manufacturer or any instrument dealer at the quoted price. When purchasing from the manufacturer, terms are C. O. D.. When check accompanies order shipping charges will be prepaid. In Foreign Countries, duty and excise tax are added to sale price.

Patents are pending on all of these instruments.

Special Model

A special model is also available which contains two motors, making it possible to have both saw and drill guns available for use at the same time. In certain operations Dr. Carrell has found this model more convenient than his standard model. It is, however, somewhat more expensive.

Prices are subject to change without notice.

Address all communications to

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